

Memorandum

Date: September 21, 2010

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To: James D. Boyd, Commissioner and Presiding Member
Jeffrey D. Byron, Commissioner and Associate Member
Hearing Officer, Raoul Renaud

From: California Energy Commission – Rod Jones
1516 Ninth Street Project Manager
Sacramento, CA 95814-5512

DOCKET**08-AFC-8**DATE SEP 21 2010RECD. SEP 21 2010**Subject: HYDROGEN ENERGY CALIFORNIA (08-AFC-8) STATUS REPORT 8**

Staff submits the following Status Report # 8 for the proposed Hydrogen Energy California (HECA) project, pursuant to the Committee Scheduling Order dated April 22, 2010.

OEHI's Draft Monitoring, Reporting and Verification Plan/Energy Commission Staff Workshop

On July 23, 2010, Energy Commission staff received Occidental of Elk Hills' (OEHI) draft Monitoring, Reporting and Verification Plan (MRV Plan) for the proposed enhanced oil recovery (EOR) and carbon dioxide (CO₂) sequestration aspects of the Hydrogen Energy California (HECA) project.

On August 17, 2010, Energy Commission staff facilitated a workshop on the draft MRV Plan. The purpose of the workshop was to discuss the draft MRV Plan and to learn more about the operation and management of the CO₂ EOR Project that is proposed by OEHI. The main objective of the CO₂ EOR Project would be to use CO₂ produced by the HECA project to extend the life of OEHI's existing enhanced oil recovery program in an area within the Elk Hills Unit (EHU). It is expected that a large portion of the CO₂ used in the EOR will be permanently sequestered within the EHU. The MRV Plan is one means of evaluating the success of this project. OEHI is still working on the project closure component of the plan, and expects to submit a more complete document by the end of October.

Staff from the U.S. Department of Energy (National Energy Technology Laboratory), Department of Conservation-Division of Oil, Gas, and Geothermal Resources (DOGGR), United States Environmental Protection Agency, and other interested agencies were invited to participate. The workshop was attended by many of the invitees as well as the Carbon Capture and Storage (CCS) Review Panel and West Coast Regional Carbon Sequestration Partnership (WESTCARB) technical staff. DOGGR was not in attendance.

While the Energy Commission is on track to make a determination on the HECA project (including the CO₂ EOR component) in spring 2011, DOGGR could be waiting a year or more to receive OEHI's Class II UIC (underground injection control) permit. However, OEHI stated during the draft MRV Plan workshop that they are now planning to move up their submittal date but will need to meet with the applicant and DOGGR to discuss, which could accelerate the enhanced oil recovery project.

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In addition, staff needs clarification from DOGGR regarding which classification of UIC permit is required for the CO₂ EOR project. OEHI states in their draft MRV Plan and sample UIC permit application that a Class II underground injection control (UIC) permit is sufficient. On the other hand, staff is under the impression that a Class VI UIC permit is needed because carbon dioxide would be injected into the Elk Hills oil field wells, which may not be permitted under the Class II UIC permit designation.

Preliminary Staff Assessment Part 1 (PSA)

On August 31, 2010, staff published part 1 of the Preliminary Staff Assessment (PSA), which includes the following technical areas; air quality, hazardous materials management; noise and vibration, public health, socioeconomics, traffic and transportation, transmission line safety and nuisance, worker safety/fire protection, facility design, geology and paleontology, power plant efficiency, power plant reliability, and transmission system engineering.

Part 2 is slated for publishing in early November, and will include the following technical areas: biological resources, cultural resources, soil and water resources, visual resources, land use, and waste management. Additionally an analysis of the proposed site alternatives and the greenhouse gas emissions appendix, which will include an analysis of the carbon dioxide enhanced oil recovery and the sequestration proposal (a key component of HECA) will be in Part 2 of the PSA. At that time staff will solicit final written comments on the complete PSA in preparation for a staff workshop and the completion of the Final Staff Assessment (FSA).

Applicant's Proposed Linear Modifications

On September 1, 2010, the applicant submitted a revised alternative route for the natural gas line which avoids potential biological conflicts with proposed conservation lands. Staff has begun analyzing this new proposed feature which will be detailed in the PSA Part 2.

Data Requests Set No. 3

Staff is in the process of preparing a third set of data requests primarily triggered by the new alternative linear route which are slated to be submitted to the applicant on September 27, 2010. These will cover biology, cultural resources, land use, greenhouse gas emissions, soil and water resources, visual resources and waste management.

Schedule

The applicant's response time for the data responses could impact the publication date for Part 2 of the PSA.



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
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**APPLICATION FOR CERTIFICATION
FOR THE *HYDROGEN ENERGY*
*CALIFORNIA PROJECT***

Docket No. 08-AFC-8

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DECLARATION OF SERVICE

I, Teraja` Golston, declare that on September 21, 2010, I served and filed copies of the attached (08-AFC-8) HECA – Status Report #8, dated September 21, 2010, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [\[http://www.energy.ca.gov/sitingcases/hydrogen_energy\]](http://www.energy.ca.gov/sitingcases/hydrogen_energy).

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

- ☒ sent electronically to all email addresses on the Proof of Service list;
- ☒ by personal delivery;
- ☐ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses NOT marked "email preferred."

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- ☒ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (*preferred method*);

OR

- ☐ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

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I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Original Signature in Dockets

Teraja` Golston